

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---------------|------------------------------|------------------|---------|------------------|
| L2 | 1 | "6531871".pn. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/12/19 13:59 |
| S1 | 1 | "6830467".pn. | USPAT | OR | OFF | 2005/04/26 09:13 |
| S2 | 1 | "6717501".pn. | USPAT | OR | OFF | 2005/04/25 11:50 |
| S3 | 1 | "20050046590" | US-PGPUB; USPAT | OR | OFF | 2005/04/25 12:32 |

| | | | | | | |
|---|-----|--|--------------------|----|-----|------------------|
| S4 | 112 | ("0749633" "2178931" "2197392" "2249769" "2301783" "2354887" "2379800" "2414719" "2531120" "2633414" "2659773" "2662123" "2748358" "2974303" "2982360" "3079549" "3090031" "3170137" "3186222" "3194886" "3209323" "3227973" "3253245" "3518608" "3696332" "3793632" "3807502" "3879097" "3930220" "3957118" "3989330" "4012092" "4087781" "4095865" "4121193" "4126848" "4215426" "4220381" "4348672" "4445734" "4496203" "4537457" "4578675" "4605268" "4660910" "4683944" "4698631" "4722402" "4785247" "4788544" "4806928" "4884071" "4901069" "4914433" "4924949" "5008664" "5052941" "5148408" "5248857" "5278550" "5302138" "5311661" "5332049" "5334801" "5371496" "5454605" "5455573" "5505502" "5517843" "5521592" "5568448" "5650983" "5691712" "5743301" "5810401" "5833490" "5853199" "5856710" "5898408" "5908212" "5924499" "5942990" "5955966" "5959547" "5971072" "6030004" "6041872" "6045165" "6046685" "6057784" "6104707" "6108268" "6123561" "6141763" "6173334" "6177882" "6188223" "6196335" "6209632" "6223826" "6367565" "6392317" "6405795" "6641434" "6655464" "6670880" "2178931" "2197392" "2249769" "2301783" "2354887" "2379800" "2414719" "2531120" "2633414" "2659773" "2662123" "2748358" "2974303" "2982360" "0135179" "0193004" "0070842" "0213598" "3079549" "3090031" "3170137" "3186222" "3194886" "3209323" "3227973" "3253245" "3518608" "3696332" "3793632" "3807502" "3879097" "3930220" "3957118" "3989330" "4012092" "4087781" "4095865" "4121193" "4126848" "4215426" "4220381" "4348672" "4445734" "4496203" "4537457" "4578675" "4605268" "4660910" "4683944" "4698631" "4722402" "4785247" "4788544" "4806928" "4884071" "4901069" "4914433" "4924949" "5008664" "5052941" "5148408" "5248857" "5278550" "5302138" "5311661" "5332049" "5334801" "5371496" "5454605" "5455573" "5517843" "5521592" "5568448" "5650983" | US-PGPUB; USPAT | OR | OFF | 2005/04/26 09:43 |
| Search History 12/19/05 5:20:38 PM Page 2 C:\Documents and Settings\matalini\My Documents\EAST\Workspaces\10708775.wsp | | | | | | |

| | | | | | | |
|-----|-----|---|------------------------------|----|-----|------------------|
| S5 | 55 | S4 and (drill near3 string) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 13:49 |
| S6 | 20 | S5 and (transmission near3 (path line wire string)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 12:33 |
| S7 | 15 | S5 and (reflect\$3 TDR) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 13:49 |
| S8 | 68 | ("2379800" "2411696" "3186222" "3205477" "3227228" "3233674" "3333239" "3930220" "4019148" "4087781" "4181014" "4215426" "4283780" "4293936" "4293937" "4298970" "4302757" "4320473" "4348672" "4363137" "4373582" "4387372" "4406919" "4468665" "4496174" "4525715" "4562559" "4578675" "4616702" "4617960" "4684946" "4691203" "4725837" "4739325" "4757157" "4766442" "4788544" "4800570" "4839644" "4845493" "4901069" "4908804" "4933640" "4968978" "5087099" "5130706" "5160925" "5268683" "5390748" "5394141" "5396232" "5448227" "5467083" "5467832" "5493288" "5530358" "5576703" "5583504" "5691712" "5914911" "6018501").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 15:53 |
| S9 | 130 | 367/82,156,168.ccls. and (drill near4 (string line path)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 16:22 |
| S10 | 36 | 367/82.ccls. and (reflect\$4) and electromagnetic | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 16:54 |
| S11 | 1 | 367/82.ccls. and (reflect\$4) and electromagnetic and ((determin\$3 detect\$3 find\$3 locat\$4) near3 (interruption\$1 discontinuit\$3 short open fault\$1)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 18:09 |

| | | | | | | |
|-----|-----|--|-----------------------------|----|-----|------------------|
| S12 | 2 | 367/82,156,168.ccls. and (reflect\$4) and electromagnetic and ((determin\$3 detect\$3 find\$3 locat\$4) near3 (interruption\$1 discontinuit\$3 short open fault\$1)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 17:14 |
| S13 | 1 | S12 not S11 | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 17:21 |
| S14 | 1 | 324/642,644.ccls. and (drill near3 (string path line)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 17:21 |
| S15 | 1 | 324/637,642,644.ccls. and (drill near3 (string path line)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 18:15 |
| S16 | 1 | 324/338.ccls. and (electromagnetically adj coupled) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 17:45 |
| S17 | 6 | 324/338.ccls. and (electromagnetic\$5 adj coupl\$3) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 17:47 |
| S18 | 334 | 324/338.ccls. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 17:47 |
| S19 | 0 | 367/82.ccls. and TDR | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 18:07 |
| S20 | 1 | 367/82.ccls. and (reflect\$4) and ((determin\$3 detect\$3 find\$3 locat\$4) near3 (interruption\$1 discontinuit\$3 short open fault\$1 defect\$1)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 18:10 |
| S21 | 3 | 166/380.ccls. and (reflect\$4) and ((determin\$3 detect\$3 find\$3 locat\$4) near3 (interruption\$1 discontinuit\$3 short open fault\$1 defect\$1)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 18:11 |
| S22 | 1 | "20020149501" | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 18:11 |
| S23 | 8 | 324/637,642,644.ccls. and TDR and (compar\$3 with reference) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/25 18:16 |
| S25 | 5 | "166"/\$.ccls. and (drill near3 (string\$1 path\$1 line\$1)) and (((shorted open) near2 (box pin) near2 end)) | US-PGPUB; USPAT; USOCR; EPO | OR | OFF | 2005/04/26 09:21 |
| S26 | 46 | "166"/\$.ccls. and (drill near3 (string\$1 path\$1 line\$1)) and (((shorted open) near2 (box pin))) | US-PGPUB; USPAT; USOCR; EPO | OR | OFF | 2005/04/26 09:29 |

| | | | | | | |
|-----|-----|--|--------------------------------------|----|-----|------------------|
| S27 | 41 | S26 not S25 | US-PGPUB; USPAT; USOCR; EPO | OR | OFF | 2005/04/26 09:22 |
| S28 | 199 | "166"/\$.ccls. and (drill near3 (string\$1 path\$1 line\$1)) and ((detect\$4 determin\$3 find\$3 locat\$3) near3 (short open)) | US-PGPUB; USPAT; USOCR; EPO | OR | OFF | 2005/04/26 09:30 |
| S29 | 39 | "166"/\$.ccls. and (drill near3 (string\$1 path\$1 line\$1)) same ((detect\$4 determin\$3 find\$3 locat\$3) near3 (short open)) | US-PGPUB; USPAT; USOCR; EPO | OR | OFF | 2005/04/26 09:33 |

| | | | | | | |
|---|-----|--|--------------------|----|-----|------------------|
| S30 | 112 | ("0749633" "2178931" "2197392" "2249769" "2301783" "2354887" "2379800" "2414719" "2531120" "2633414" "2659773" "2662123" "2748358" "2974303" "2982360" "3079549" "3090031" "3170137" "3186222" "3194886" "3209323" "3227973" "3253245" "3518608" "3696332" "3793632" "3807502" "3879097" "3930220" "3957118" "3989330" "4012092" "4087781" "4095865" "4121193" "4126848" "4215426" "4220381" "4348672" "4445734" "4496203" "4537457" "4578675" "4605268" "4660910" "4683944" "4698631" "4722402" "4785247" "4788544" "4806928" "4884071" "4901069" "4914433" "4924949" "5008664" "5052941" "5148408" "5248857" "5278550" "5302138" "5311661" "5332049" "5334801" "5371496" "5454605" "5455573" "5505502" "5517843" "5521592" "5568448" "5650983" "5691712" "5743301" "5810401" "5833490" "5853199" "5856710" "5898408" "5908212" "5924499" "5942990" "5955966" "5959547" "5971072" "6030004" "6041872" "6045165" "6046685" "6057784" "6104707" "6108268" "6123561" "6141763" "6173334" "6177882" "6188223" "6196335" "6209632" "6223826" "6367565" "6392317" "6405795" "6641434" "6655464" "6670880" "2178931" "2197392" "2249769" "2301783" "2354887" "2379800" "2414719" "2531120" "2633414" "2659773" "2662123" "2748358" "2974303" "2982360" "0135179" "0193004" "0070842" "0213598" "3079549" "3090031" "3170137" "3186222" "3194886" "3209323" "3227973" "3253245" "3518608" "3696332" "3793632" "3807502" "3879097" "3930220" "3957118" "3989330" "4012092" "4087781" "4095865" "4121193" "4126848" "4215426" "4220381" "4348672" "4445734" "4496203" "4537457" "4578675" "4605268" "4660910" "4683944" "4698631" "4722402" "4785247" "4788544" "4806928" "4884071" "4901069" "4914433" "4924949" "5008664" "5052941" "5148408" "5248857" "5278550" "5302138" "5311661" "5332049" "5334801" "5371496" "5454605" "5455573" "5517843" "5521592" "5568448" "5650983" | US-PGPUB; USPAT | OR | OFF | 2005/04/26 09:43 |
| Search History 12/19/05 2:20:38 PM Page 6 C:\Documents and Settings\natalini\My Documents\FAST\Workspaces\10708775.wsp | | | | | | |

| | | | | | | |
|-----|----|---|--------------------|----|-----|------------------|
| S31 | 0 | S30 and ((shorted open) near2 box) | US-PGPUB; USPAT | OR | OFF | 2005/04/26 09:44 |
| S32 | 6 | S30 and ((shorted open) near3 end) | US-PGPUB; USPAT | OR | OFF | 2005/04/26 09:51 |
| S33 | 1 | "6670880".pn. | US-PGPUB; USPAT | OR | OFF | 2005/04/26 09:50 |
| S34 | 27 | (drill near3 (string path line)) and (location with (defect fault interruption)) | US-PGPUB; USPAT | OR | OFF | 2005/04/26 11:12 |
| S35 | 27 | 340/854.4,855.2,854.9.ccls. and (drill near3 (string line path)) and (reflect\$3) | US-PGPUB; USPAT | OR | OFF | 2005/04/26 11:25 |
| S36 | 26 | S35 not S34 | US-PGPUB; USPAT | OR | OFF | 2005/04/26 11:13 |

| | | | | | | |
|---|-----|---|--------------------|----|-----|------------------|
| S37 | 112 | ("0749633" "2178931" "2197392" "2249769" "2301783" "2354887" "2379800" "2414719" "2531120" "2633414" "2659773" "2662123" "2748358" "2974303" "2982360" "3079549" "3090031" "3170137" "3186222" "3194886" "3209323" "3227973" "3253245" "3518608" "3696332" "3793632" "3807502" "3879097" "3930220" "3957118" "3989330" "4012092" "4087781" "4095865" "4121193" "4126848" "4215426" "4220381" "4348672" "4445734" "4496203" "4537457" "4578675" "4605268" "4660910" "4683944" "4698631" "4722402" "4785247" "4788544" "4806928" "4884071" "4901069" "4914433" "4924949" "5008664" "5052941" "5148408" "5248857" "5278550" "5302138" "5311661" "5332049" "5334801" "5371496" "5454605" "5455573" "5505502" "5517843" "5521592" "5568448" "5650983" "5691712" "5743301" "5810401" "5833490" "5853199" "5856710" "5898408" "5908212" "5924499" "5942990" "5955966" "5959547" "5971072" "6030004" "6041872" "6045165" "6046685" "6057784" "6104707" "6108268" "6123561" "6141763" "6173334" "6177882" "6188223" "6196335" "6209632" "6223826" "6367565" "6392317" "6405795" "6641434" "6655464" "6670880" "2178931" "2197392" "2249769" "2301783" "2354887" "2379800" "2414719" "2531120" "2633414" "2659773" "2662123" "2748358" "2974303" "2982360" "0135179" "0193004" "0070842" "0213598" "3079549" "3090031" "3170137" "3186222" "3194886" "3209323" "3227973" "3253245" "3518608" "3696332" "3793632" "3807502" "3879097" "3930220" "3957118" "3989330" "4012092" "4087781" "4095865" "4121193" "4126848" "4215426" "4220381" "4348672" "4445734" "4496203" "4537457" "4578675" "4605268" "4660910" "4683944" "4698631" "4722402" "4785247" "4788544" "4806928" "4884071" "4901069" "4914433" "4924949" "5008664" "5052941" "5148408" "5248857" "5278550" "5302138" "5311661" "5332049" "5334801" "5371496" "5454605" "5455573" "5517843" "5521592" "5568448" "5650983" | US-PGPUB; USPAT | OR | OFF | 2005/04/26 13:18 |
| Search History 12/19/05 5:20:34 PM Page 8 C:\Documents and Settings\natalini\My Documents\EAST\Workspaces\10708775.wsp | | | | | | |

| | | | | | | |
|-----|-------|---|--------------------------------------|----|-----|------------------|
| S38 | 1 | "5675325".pn. | US-PGPUB; USPAT | OR | OFF | 2005/04/26 13:20 |
| S39 | 1 | "5568448".pn. | US-PGPUB; USPAT | OR | OFF | 2005/04/26 13:20 |
| S40 | 1 | "4785247".pn. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 09:09 |
| S41 | 0 | ((("signal generator" and receiver) with (share near3 coil)) and (drill adj (string pipe)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 09:11 |
| S42 | 0 | ((("signal generator" with receiver) with (share near3 (coil))) and (drill adj (string pipe)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 09:12 |
| S43 | 0 | ((("signal generator" same receiver) same (share near3 (coil))) and (drill adj (string pipe)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 09:12 |
| S44 | 26 | ((("signal generator" oscillator generator) with receiver) with ((coil))) and (drill adj (string pipe)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 09:22 |
| S45 | 40281 | ((("signal adj generator) oscillator generator) with receiver) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 09:26 |
| S46 | 30967 | (share or "same") near3 coil | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 09:26 |
| S47 | 22 | ((("signal adj generator) oscillator generator) with receiver) with ((share or "same") near3 coil) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 10:06 |
| S48 | 2 | ("5631562" "6426917").pn. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/04/27 10:07 |
| S49 | 95 | 324/333,337,338.ccls. and (drill near (string\$1 path\$1 line pipe\$1)) | USPAT | OR | OFF | 2005/04/29 08:37 |
| S50 | 128 | 324/333,337,338.ccls. and (drill near (string\$1 path\$1 line pipe\$1)) | US-PGPUB; USPAT; USOCR; EPO | OR | OFF | 2005/04/29 08:34 |
| S51 | 51 | S50 and (reflect\$3) | US-PGPUB; USPAT; USOCR; EPO | OR | OFF | 2005/04/29 08:34 |
| S52 | 13 | 324/356.ccls. and (drill near (string\$1 path\$1 line pipe\$1)) | USPAT | OR | OFF | 2005/04/29 08:38 |
| S53 | 61 | 324/356.ccls. and (drill near (string\$1 path\$1 line pipe\$1)) | US-PGPUB; USPAT; USOCR; EPO | OR | OFF | 2005/04/29 08:38 |

| | | | | | | |
|-----|-----|---|------------------------------|----|-----|------------------|
| S54 | 1 | ("5568448".pn.) | USPAT | OR | OFF | 2005/12/19 09:53 |
| S55 | 0 | "0389362" | EPO | OR | OFF | 2005/12/19 09:54 |
| S56 | 16 | Grudzinski.in. | EPO | OR | OFF | 2005/12/19 10:08 |
| S57 | 0 | S56 and (drill string) | EPO | OR | OFF | 2005/12/19 09:54 |
| S58 | 2 | S56 and electromagnetic | EPO | OR | OFF | 2005/12/19 09:54 |
| S59 | 514 | (electromagnetic same (drill near3 (string path))) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/12/19 11:14 |
| S60 | 6 | (electromagnetic same (drill near3 (string path))) same (reflect reflection reflects reflecting) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/12/19 10:30 |
| S61 | 10 | ("4181014" "4578675" "4684946" "4770034" "5163714" "5394141" "5945923" "6392561" "6531871" "6628206").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/12/19 10:39 |
| S62 | 1 | S61 and (reflect\$5) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/12/19 10:42 |
| S63 | 8 | ("20030010493" "4684946" "5163714" "5394141" "5831549" "5945923" "6531871" "6628206").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/12/19 10:50 |
| S64 | 1 | S63 and (reflect\$3) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/12/19 10:52 |
| S65 | 5 | (electromagnetic same reflect\$4 same (fault\$1 interruption\$1 defect\$1)) and (drill near3 (string path)) | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/12/19 13:59 |